

Claims:

1. A method for inducing *in vivo* the cellular differentiation and, at the same time, apoptosis of tumor cells that use the hedgehog/smoothened signalling for proliferation and for prevention of apoptosis and/or for prevention of differentiation, comprising contacting said tumor cells with cyclopamine or a pharmaceutically acceptable salt or derivative thereof.

2. The method according to claim 1, characterized in that transient administration of cyclopamine or a pharmaceutically acceptable salt or derivative thereof suffices for the causation of the differentiation and/or apoptosis of said tumor cells, but normal tissue cells are preserved.

3. The method according to claim 1, for the treatment of cancer.

4. The method of claim 3, wherein the cancer is basal cell carcinoma.

5. The method according to claim 1, characterized in that the cyclopamine or a pharmaceutically acceptable salt or derivative thereof is formulated in a pharmaceutical composition selected from the group of compositions for topical, non-topical or systemic administration.

6. The method according to claim 5, characterized in that the composition for non-topical or systemic administration is in the form of an aqueous solution.

7. The method according to claim 5, characterized in that the composition for non-topical or systemic administration is in the form of liposomes, having the cyclopamine or pharmaceutically acceptable salt or derivative thereof entrapped therein.

8. The method according to claim 6, characterized in that the non-topical administration is direct intratumoral injection.

5 9. The method according to claim 7, characterized in that the non-topical administration is direct intratumoral injection.

10 10. The method according to claim 5, characterized in that said pharmaceutical composition is in a controlled release form.

11. The method according to claim 5, characterized in that said pharmaceutical composition is adsorbed onto a dermal patch.

12. The method according to claim 5, characterized in that said pharmaceutical composition for topical administration comprises 18mM of cyclopamine and is selected from the group of a cream, an ointment, a gel or a hydrogel.

13. A medicament for inducing *in vivo* the cellular differentiation and, at the same time, apoptosis of tumor cells that use the hedgehog/smoothed signalling for proliferation and for prevention of apoptosis and/or for prevention of differentiation, the medicament comprising cyclopamine or a pharmaceutically acceptable salt or derivative thereof.

14. A medicament according to claim 13, characterized in that normal tissue cells are preserved following transient administration of said medicament but said administration suffices for the causation of the differentiation and/or apoptosis of said tumor cells.

15. A medicament according to claim 13, for the treatment of basal cell carcinoma.

16. A medicament according to claim 13, characterized in that said medicament is formulated for topical, non-topical or systemic administration.

5 17. A medicament according to claim 16, characterized in that for non-topical or systemic administration cyclopamine is in the form of an aqueous solution, or is entrapped in liposomes.

18. A medicament according to claim 17, characterized in that the non-topical administration is direct intratumoral injection.  
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19. A medicament according to claim 13, characterized in that said medicament is a pharmaceutical form enabling controlled release.

20. A medicament according to claim 13, characterized in that said  
15 medicament is adsorbed onto a dermal patch.

21. A medicament according to claim 13, characterized in that said medicament is manufactured in the form of a cream, ointment, gel, or hydrogel comprising 0,001 mM to 100 mM cyclopamine or a salt or derivative thereof.  
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22. A medicament according to claim 13, characterized in that said medicament is manufactured in the form of a cream, ointment, gel or hydrogel comprising 18mM of cyclopamine.

25 23. A medicament for application on patients having nevi or skin disorders associated with increased pigmentation, the medicament comprising cyclopamine or a pharmaceutically acceptable salt or derivative thereof.

24. A cosmetic formulation comprising cyclopamine or a pharmaceutically acceptable salt or derivative thereof, for application on a person having nevi or increased pigmentation of skin.